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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/803,225	03/16/2004	Zeying Ma	200309561-1	5644
22879 7590 12/17/2007 HEWLETT PACKARD COMPANY P O BOX 272400, 3404 E. HARMONY ROAD INTELLECTUAL PROPERTY ADMINISTRATION, FORT COLLINS, CO 80527-2400			EXAMINER FERGUSON SAMRETH, MARISSA LIANA	
			ART UNIT 2854	PAPER NUMBER
			NOTIFICATION DATE 12/17/2007	DELIVERY MODE ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

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Office Action Summary	Application No. 10/803,225	Applicant(s) MA ET AL.	
	Examiner Marissa L. Ferguson-Samreth	Art Unit 2854	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 20 September 2007.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-6, 10-22 and 26-30 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1, 4, 5, 14, 16, 17, 20-22 and 27-30 is/are rejected.
- 7) ☒ Claim(s) 2, 3, 6, 10-13, 15, 18, 19 and 26 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1, 16, 17 and 22 are rejected under 35 U.S.C. 103(a) as being unpatentable over Choy et al. (EPO 1,329,487) in view of Kowalski (US Patent 6,536,893) and Nagata et al. (US Patent 6,585,366).

Regarding claims 1, 16 and 17, Choy et al. teaches the invention and method claimed comprising offset media and an inkjet ink including a pigment colorant, wherein the inkjet ink is configured to be ink jetted onto the offset media (Abstract, Page 3, Paragraph 0017 and Page 9, Paragraph 0033). However, he does not explicitly disclose a calendaring device comprising a pair of rollers configured for applying pressure to offset media once the inkjet ink is ink-jetted thereon and wherein the pressure is mechanical pressure applied at from 500 psi to 3000 psi, and wherein the heat to be applied is from 20 degrees C to 90 degrees C. Kowalski teaches a method of printing an ink jet ink on a print medium comprising a heating/pressing calendaring device (element 22,122), which may contain rollers (Column 8, Lines 49-60). The method also consist of providing or jetting an ink of a medium forming an intermediate image and then subjecting the medium to pressure (Column 1, Lines 46-61). It would have been obvious at the time the invention was made to a person having ordinary skill in the art to modify

the invention taught by Choy et al. to include a calendaring device as taught by Kowalski, since Kowalski teaches it is advantageous to provide a medium with a water fast and smear fast printed image (Column 1, Lines 56-61).

However, Choy and Kowalski do not teach calendaring at a mechanical pressure applied from 500 psi to 3000 psi and applying a heat from 20° to 90° C. Nagata et al. teaches applying ink to a surface of a media and calendaring (element 2, Abstract and Column 5, Lines 39-55) at 50 to 1200N/cm (73 psi –1740 psi) at a temperature of about 20-100 degrees C (Column 5, Lines 18-27). It would have been obvious at the time the invention was made to a person having ordinary skill in the art to modify the invention taught by Choy et al. to replace the calendaring device thereof with a device that calendars at a pressure and temperature as taught by Nagata et al. provides improved optical density of an image.

Regarding claim 22, Choy et al. teaches wherein the pigment colorant is present in the inkjet ink at from 0.5 % to 10% (Page 4, Line27).

2. Claims 4, 5, 20 and 21 are rejected under 35 U.S.C. 103(a) as being unpatentable over Choy et al. (EPO 1,329,487) in view of Kowalski (US Patent 6,536,893) and Nagata et al. (US Patent 6,585,366) as applied to claims 1 and 17 above, and further in view of Ishikawa et al. (US Publication 2002/0175983).

Choy et al., Kowalski and Nagata et al. all teach the method and invention claimed including the claimed weight as discussed in claim 6 above, however the references do not explicitly disclose latex particulates dispersed in the inkjet ink. Ishikawa et al. teaches latex particulate dispersion in inkjet inks (Paragraph 0006). It

would have been obvious at the time the invention was made to a person having ordinary skill in the art to further modify the invention taught by Choy et al. in view of Kowalski and Nagata et al. to include dispersing particulates in an inkjet ink as taught by Ishikawa et al., since Ishikawa et al. teaches it is advantageous to improve water resistance, light fastness and rub resistance of inkjet images.

3. Claims 14, 15, 27 and 28 are rejected under 35 U.S.C. 103(a) as being unpatentable over Choy et al. (EPO 1,329,487) in view of Kowalski (US Patent 6,536,893), Nagata et al. (US Patent 6,585,366) and Ishikawa et al. (US Publication 2002/0175983) as applied to claims 4, 5, 20 and 21 above, and further in view of Tamagawa et al. (2003/019885).

Choy et al., Kowalski, Nagata et al. and Ishikawa et al. all teach the invention and method claimed with the exception of latex particulates present in the overcoat composition at from 0.1 wt% to 15% wt and being predominantly from 20 nm-500nm and 10,000 Mw to 2,000,000 in size. Tamagawa et al. does not teach the exact /specific claimed molecular weight, however he does at least teach core/shell latex particles with an average molecular weight of 30,000 to 500,000 (Mn(c)) of the core and 4,000 to 30,000 [Mn(s)] of the shell and particle size of 0.2 μ m (Page 5, Paragraphs 0079-0081).

It would have been obvious at the time the invention was made to a person having ordinary skill in the art to further modify the invention taught by Choy et al. in view of Kowalski, Nagata et al. and Ishikawa et al. to include the claimed range latex particles in an overcoat composition as taught by Tamagawa et al., since Tamagawa et al. teaches

it is advantageous to provide a recording material with excellent surface smoothness and water resistant qualities.

4. Claim 29 is rejected under 35 U.S.C. 103(a) as being unpatentable over Choy et al. (EPO 1,329,487) in view of Kowalski (US Patent 6,536,893) and Nagata et al. (US Patent 6,585,366) as applied to claim 17 above, and further in view of Tamagawa et al. (2003/019885).

Choy et al., Kowalski and Nagata et al. all teach the method and apparatus claimed with the exception of a step of applying heat to the printed image to contribute to the physical property of the image being altered and a physical property is smoothness, wherein upon applying pressure, the printed image is modified from having a textured profile to a smoother profile. Tamagawa et al. provides the calendaring treatment in order to alter the appearance of a substrate by providing a smooth surface (Paragraph 0011). It would have been obvious at the time the invention was made to a person having ordinary skill in the art to further modify the invention taught by Choy et al. in view of Kowalski and Nagata et al. to provide smoothness as a physical attribute as taught by Tamagawa et al., since Tamagawa et al. teaches it is advantageous to form an image having superior image quality and gloss.

5. Claim 30 is rejected under 35 U.S.C. 103(a) as being unpatentable over Choy et al. (EPO 1,329,487) in view of Kowalski (US Patent 6,536,893) and Nagata et al. (US Patent 6,585,366) as applied to claims 1 and 17 above, and further in view Deguchi et al. (JP 02026747).

Choy et al., Kowalski and Nagata et al. all teach the method and invention claimed except for wherein the physical property is flow, wherein upon applying pressure, the printed image is temporarily modified from a more solid configuration to a more liquid configuration. Deguchi et al. teaches a hot melt type ink jet printer that melts the printing ink on a paper and softens the ink due to pressure applied by a device (Purpose and Constitution).

It would have been obvious at the time the invention was made to a person having ordinary skill in the art to further modify the invention taught by Choy et al. in view of Kowalski and Nagata et al. to include a printing image that is temporarily modified due to pressure as taught by Deguchi et al., since Deguchi et al. teaches that it is advantageous to add heat in order to make the printed image into a more liquid configuration.

Allowable Subject Matter

6. Claims 2, 3, 6, 15, 18, 19, 26 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

7. The following is a statement of reasons for the indication of allowable subject matter: Regarding claims 1 and 18, the prior art does not teach or render obvious in combination with claims 1 and 17, a method and system further comprising a fixer composition including a crashing agent that is reactive with a component of the ink-jet ink, said fixer composition being configured to be overprinted or underprinted on the offset media with respect to the ink-jet ink.

Regarding claim 6, the prior art does not teach or render obvious in combination with claim, a system wherein the latex particulates are present in the overcoat composition at from 0.1wt% to 15wt%.

Response to Arguments

8. Applicant's arguments filed 9/20/07 based upon rejected claims 1, 4, 5, 10-14, 16, 17, 20-22 and 27-30 have been fully considered but they are not persuasive. The arguments based upon claims 2, 3, 6, 15, 18, 19, 26 above have been found persuasive.

9. With regards to claims 2, 3, 6, 15, 18, 19, 26, the examiner agrees with applicant's arguments as indicated on pages 10 and 11. The limitations as a whole do not constitute the rejections as previously indicated.

10. In response to applicant's argument on page 8, that there is no suggestion to combine the references, the examiner recognizes that obviousness can only be established by combining or modifying the teachings of the prior art to produce the claimed invention where there is some teaching, suggestion, or motivation to do so found either in the references themselves or in the knowledge generally available to one of ordinary skill in the art. See *In re Fine*, 837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988) and *In re Jones*, 958 F.2d 347, 21 USPQ2d 1941 (Fed. Cir. 1992). In this case, Choy et al. teaches ink jet ink composition for printing on offset media (Abstract), Kowalski teaches a method of printing ink jet ink on a print medium by subjecting the medium to a pressure (Abstract) and Nagata teaches a calendering device with a mechanical and temperature ranges as claimed. The prior art teaches printing on a media and/or forming images on media, therefore it would have been obvious to combine the references to achieve quality print results.

11. In regards to applicant's remarks on page 9, mainly concerning Kowalski teaching away, a prior art reference that "teaches away" from the claimed invention is a significant factor to be considered in determining obviousness; however, "the nature of the teaching is highly relevant and must be weighed in substance. A known or obvious composition does not become patentable simply because it has been described as somewhat inferior to some other product for the same use." *In re Gurley*, 27 F.3d 551, 554, 31 USPQ2d 1130, 1132 (Fed. Cir. 1994) (Claims were directed to an epoxy resin based printed circuit material. A prior art reference disclosed a polyester-imide resin based printed circuit material, and taught that although epoxy resin based materials

have acceptable stability and some degree of flexibility, they are inferior to polyester-imide resin based materials. The court held the claims would have been obvious over the prior art because the reference taught epoxy resin based material was useful for applicant's purpose, applicant did not distinguish the claimed epoxy from the prior art epoxy, and applicant asserted no discovery beyond what was known to the art.).

12. Regarding remarks on page 10, first paragraph, concerning the altering of the image, the examiner acknowledges the prior art does at least teach a pressure and a temperature. Also, the examiner notes that in any instance when a pressure and/or temperature is applied, whether it be a low or high pressure/temperature, some type of alteration to an image would occur.

Conclusion

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Marissa L. Ferguson-Samreth whose telephone number is (571) 272-2163. The examiner can normally be reached on (M-T) 6:30am-4:00pm and every other (F) 7:30am-4:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Judy Nguyen can be reached on (571) 272-2258. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Marissa L Ferguson-Samreth
Examiner
Art Unit 2854

MFS



Daniel J. Colilla
Primary Examiner
Art Unit 2854